

Nebraska.—Genoa, 13th, 21st; Omaha, 22d; Red Willow, 2d, 13th, 22d.

New Jersey.—Barnegat City, 28th; Freehold, 28th; Moorestown, 30th.

New Mexico.—Fort Union, 11th.

New York.—Ithaca, 29th.

Ohio.—Cleveland, 29th; Toledo, 29th; Wauseon, 23d, 29th; Westerville, 29th.

Tennessee.—Ashwood, 4th.

Texas.—Fort Stockton, 13th, 19th.

Virginia.—Norfolk, 5th.

Wyoming.—Cheyenne, 7th.

SNOW.

Cheyenne, Wyoming.—A very light snowfall occurred here on the morning of the 22d, lasting from 6.30 to 10 a. m.

Mount Washington, New Hampshire.—The sleet storm which prevailed here on the 25th changed to snow at 10.40 p. m.

Marquette, Michigan.—Light snow fell at this place from 7.05 to 7.15 p. m. of the 27th.

Fort Totten, Dakota.—A light sprinkle of snow fell here between 8 and 9 a. m. of the 27th.

Neillsville, Clark county, Wisconsin.—Light snow fell here on the morning of the 28th.

Webster, Day County, Dakota.—The first snow of the season fell at this place on the 28th.

Saint Paul, Minnesota.—A light flurry of snow fell here from 6.20 to 10.20 p. m. on the 28th. Light snow also fell on this date at Minneapolis and Owatonna, Minnesota; and Saint Ignace and Sheboygan, Michigan. At Owatonna the walks and roofs of houses were covered to a depth of one inch.

La Crosse, Wisconsin.—A few flakes of snow fell at this place at 9 p. m. of the 29th.

Farmington, Franklin county, Maine, October 1st.—Three inches of snow fell in the northern part of this county during the night of September 29th.

SLEET.

Mount Washington, New Hampshire, 3d, 25th, 30th.

Pike's Peak, Colorado, 2d, 3d.

Traverse City, Michigan, 8th.

Table of rainy and cloudy days, relative humidity, and dew-point for Sept., 1883.

Districts.	Rainy days.	Cloudy days.	Rel. humidity, %	Dew-point.
			Percentages.	°
New England.....	From 8 to 14	From 5 to 11	From 66.9 to 78.7	From 45.9 to 54.4
Middle Atlantic states.....	" 5 " 14	" 7 " 15	" 65.1 " 83.8	" 48.5 " 63.1
South Atlantic states.....	" 7 " 16	" 5 " 12	" 67.8 " 85.6	" 48.2 " 69.4
Florida peninsula.....	" 7 " 17	" 1 " 9	" 74.5 " 78.4	" 69.6 " 74.0
East Gulf.....	" 3 " 7	" 1 " 5	" 64.1 " 71.4	" 61.0 " 66.6
West Gulf.....	" 4 " 12	" 2 " 9	" 62.5 " 79.4	" 55.0 " 70.8
Rio Grande valley.....	" 6 " 9	" Ten	" 86.0	" 70.2
Ohio valley.....	" 9 " 13	From 3 to 9	" 65.0 " 66.2	" 50.2 " 54.3
Tennessee.....	" 5 " 9	" 0 " 7	" 66.9 " 72.5	" 50.8 " 60.1
Lower lakes.....	" 12 " 17	" 3 " 15	" 67.1 " 74.5	" 47.8 " 51.8
Upper lakes.....	" 8 " 16	" 4 " 11	" 68.6 " 77.6	" 42.7 " 49.7
Extreme northwest.....	" 4 " 5	" 1 " 3	" 60.4 " 79.5	" 38.4 " 43.8
Upper Mississippi valley.....	" 3 " 11	" 2 " 8	" 62.1 " 79.4	" 45.9 " 56.7
Missouri valley.....	" 6 " 11	" 2 " 5	" 61.0 " 73.1	" 43.2 " 51.3
Northern slope.....	" 3 " 9	" 1 " 4	" 44.0 " 68.2	" 29.0 " 48.3
Middle slope.....	" 9 " 10	" 3 " 7	" 47.7 " 61.1	" 36.0 " 50.7
Southern plateau.....	" 1 " 8	" 0 " 3	" 29.4 " 52.6	" 30.1 " 49.9
Northern plateau.....	" 3 " 5	" 0 " 2	" 51.1 " 61.5	" 40.0 " 41.3
North Pacific.....	" 7 " 13	" 2 " 10	" 66.8 " 84.9	" 48.0 " 54.8
Middle Pacific.....	" 1 " 1	" 1 " 5	" 36.7 " 76.7	" 43.7 " 54.6
South Pacific.....	" 0 " 1	none	" 41.9 " 72.5	" 55.5 " 58.9
Mt. Washington, N. H.....	Sixteen	Two	85.7	34.4
Pike's Peak, Col.....	Twelve	One	77.6	23.9
Salt Lake City, Utah.....	Five	One	35.3	39.8
Fort Stockton, Texas.....	Thirteen	Seven	66.9	57.0

• Relative humidity corrected for altitude.

COTTON REGION REPORTS.

In the cotton growing states the rainfall for September, 1883, as compared with that for September, 1882, shows deficiencies in all districts, except for the district of Wilmington, where there has been an excess of 5.87 inches. The largest deficiencies, 3.11, 2.83, and 2.30, occurred, respectively, in the districts of Augusta, Savannah, and Montgomery.

The means of the maxima temperatures in the western districts are higher than those for September, 1882, while in some of the eastern districts they are lower. The means of the

minima temperatures are generally lower, the greatest deficiencies occurring in the districts of Little Rock, Memphis, and Charleston.

Temperature and rainfall averages for the various districts in the cotton region, as shown in the following table, are determined from observations made at the stations shown on chart vi., issued with the REVIEW for April, 1882:

Meteorological Record of the Cotton Districts for the months of September, 1882 and 1883.

Districts.	Average rainfall in inches.		Departures.	Temperatures.				Extremes for Sept., 1883.	
	1882.	1883.		Mean of the maxima.		Mean of the minima.		Max.	Min.
	1882.	1883.		1882.	1883.	Change.	1882.	1883.	Change.
New Orleans.....	2.64	1.22	- 1.42	86.7	88.4	+ 1.7	67.7	66.2	- 1.5
Savannah.....	4.94	2.11	- 2.83	87.1	86.5	- 0.6	67.2	65.6	- 1.6
Charleston.....	4.73	3.38	- 1.35	84.8	84.5	- 0.3	64.9	61.0	- 3.9
Atlanta.....	3.15	1.72	- 1.43	82.3	83.4	+ 1.1	62.3	61.1	- 1.2
Wilmington.....	3.49	9.36	+ 5.87	81.7	79.7	- 2.0	62.8	61.2	- 1.6
Memphis.....	1.69	1.05	- 0.64	82.7	85.3	+ 2.6	60.3	56.3	- 4.0
Galveston.....	3.50	2.58	- 0.92	86.8	88.7	+ 1.9	64.8	65.1	+ 0.3
Vicksburg.....	1.73	1.11	- 0.62	85.3	88.0	+ 2.7	61.7	61.2	- 0.5
Montgomery.....	3.10	0.80	- 2.30	84.3	86.5	+ 2.2	62.0	60.8	- 1.2
Augusta.....	4.43	1.32	- 3.11	83.9	84.8	+ 0.9	64.4	63.7	- 0.7
Little Rock.....	2.32	0.63	- 1.69	83.3	87.7	+ 4.4	59.0	53.3	- 5.7
Mobile.....	1.39	0.64	- 0.75	86.4	91.2	+ 4.8	62.8	62.8	0.0

WINDS.

The most frequent directions of the wind during September, 1883, at the Signal Service stations, are shown on chart iii., by arrows flying with the wind. In the states bordering on the Atlantic, from New Jersey southward, they were from the north-east; in New England, from the south and southwest; in the lake region, Ohio and upper Mississippi valleys, from the north-east and east; in the Missouri valley, from the north; in the west Gulf states, from the east and southeast; on the Pacific coast, from north and northwest.

TOTAL MOVEMENTS OF THE AIR.

[In miles.]

In the following table are given the stations reporting the largest and smallest total movements of the air in each of the various districts:

Districts.	Stations reporting largest.	Miles.	Stations reporting smallest.	Miles.
New England.....	Block Island, R. I.....	9,727	New London, Conn.....	3,981
Middle Atlantic states.....	Del. Breakwater, Del.....	12,666	Lynchburg, Va.....	2,360
South Atlantic states.....	Kittyhawk, N. C.....	12,438	Augusta, Ga.....	2,757
Florida peninsula.....	Cedar Keys, Fla.....	5,999	Key West.....	4,160
East Gulf.....	Pensacola, Fla.....	4,573	Vicksburg, Miss.....	2,324
West Gulf.....	Galveston, Texas.....	5,838	Little Rock, Ark.....	2,202
Ohio valley.....	Louisville, Ky.....	5,403	Indianapolis, Ind.....	1,840
Tennessee.....	Nashville.....	3,925	Chattanooga.....	2,976
Lower lakes.....	Sandusky, Ohio.....	8,605	Oswego, N. Y.....	4,954
Upper lakes.....	Grand Haven, Mich.....	7,134	Chicago, Ill.....	4,783
Extreme northwest.....	Bismarck, Dak.....	6,125	Saint Vincent, Minn.....	5,344
Upper Mississippi valley.....	Saint Louis, Mo.....	7,201	Dubuque, Ia.....	3,033
Missouri valley.....	Huron, Dak.....	7,658	Omaha, Neb.....	2,385
Northern slope.....	North Platte, Neb.....	7,365	Fort Benton, Mont.....	2,016
Middle slope.....	Fort Elliott, Texas.....	6,007	Denver, Col.....	4,541
Southern plateau.....	Fort Grant, Ariz.....	5,882	El Paso, Tex.....	2,965
Northern plateau.....	Dayton, Wash.....	2,799	Spokane Falls, Wash.....	1,705
North Pacific.....	Fort Canby, Wash.....	7,952	Olympia, Wash.....	1,064
Middle Pacific.....	San Francisco, Cal.....	6,779	Sacramento, Cal.....	3,657
South Pacific.....	San Diego, Cal.....	4,105	Yuma, Arizona.....	2,605

† For 29 days only.

On the summits of Mount Washington, New Hampshire, and Pike's Peak, Colorado, the total movements of the air were 17,665, and 10,277, miles respectively.

HIGH WINDS.

On the summit of Mount Washington, New Hampshire, maximum velocities of fifty miles or more per hour occurred on the following dates: 3d to 9th and 24th to 29th, inclusive. The highest velocities recorded were as follows: 80, nw., 3d; 72, nw., 5th; 108, nw., 9th, maximum for the month; 104, nw., 24th; 72, nw., 26th.

At Cape Mendocino, California, the wind velocities were recorded on only three days during the month, which are as follows: 68, se., 28th; 96, se., 29th; 76, se., 30th.